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AAR:kam 10/13/04 317675675
Attorney Reference Number 4239-64801-02
PATENT

EXPRESS MAIL LABEL NO. EV331579968US
DATE OF DEPOSIT: OCTOBER 13, 2004

#2

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Xu

Application No. To be assigned

Filed: October 13, 2004

Confirmation No. To be assigned

For: METHODS FOR SEPARATION AND
DETECTION OF KETOSTEROIDS AND
OTHER CARBONYL-CONTAINING
COMPOUNDS

Examiner: To be assigned

Art Unit: To be assigned

Attorney Reference No. 4239-64801-02

**INFORMATION DISCLOSURE STATEMENT
PURSUANT TO 37 C.F.R. § 1.97(b)(3)**

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Listed on the accompanying form PTO-1449 and enclosed herewith are several English-language documents. Applicants respectfully request that these documents be listed as references cited on the issued patent.

Since the present application is being filed after June 30, 2003, copies of United States patents and United States published patent applications do not have to be provided to the Patent Office. This requirement of 37 C.F.R. § 1.98(a)(2)(i) has been waived by the United States Patent and Trademark Office pursuant to the Official Gazette Notice on August 5, 2003 (1276 OG 55). Applicants will, however, provide copies of such patents upon request.

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Applicants filed this Information Disclosure Statement ("IDS") before the mailing date of a first Office action on the merits. As a result, no fee should be required to file this IDS. However, if the Patent Office determines that a fee is required for Applicants to file this IDS, please charge any such fees, or credit overpayment, to the Deposit Account noted on the Transmittal Letter.

The filing of this IDS shall not be construed to be an admission that the information cited in the statement is, or is considered to be, prior art or otherwise material to patentability as defined in 37 C.F.R. §1.56.

Respectfully submitted,

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By



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U.S. PATENT DOCUMENTS

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Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
		6,326,209	Dec. 4, 2001	Jia et al.
		6,541,263	Apr. 1, 2003	Gao

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee

OTHER DOCUMENTS

Examiner's Initials*	Cite No. (optional)	
		Barry et al., "Use of S-pentafluorophenyl tris(2,4,6-trimethoxyphenyl)phosphonium acetate bromide and (4-hydrazino-4-oxobutyl) [tris(2,4,6-trimethoxyphenyl)phosphonium bromide for the derivatization of alcohols, aldehydes and ketones for detection by liquid chromatography/electrospray mass spectrometry," <i>Rapid Commun. Mass Spectrom</i> 17(5):484-97, 2003. (abstract)
		"Handbook of Derivatives for Chromatography," 2 nd Edition, Ed. Blau and Halket, John Wiley & Sons Ltd., West Sussex, England, 1993, pp. 4, 131, 157-1746.
		Choi et al., "Rapid HPLC-electrospray tandem mass spectrometric assay for urinary testosterone and dihydrotestosterone glucuronides from patients with benign prostate hyperplasia," <i>Clin. Chem.</i> 49(2):322-5, 2003.

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Dalvie and O'Donnell, "Characterization of polar urinary metabolites by ionspray tandem mass spectrometry following dansylation," *Rapid Commun. Mass Spectrom.* 12(8):419-22, 1998.

Frei-Häusler and Frei, "Determination of hydroxybiphenyls as dansyl derivatives," *Journal of Chromatography* 79:209-216, 1973.

Fotsis and Adlercreutz, "The multicomponent analysis of estrogens in urine by ion exchange chromatography and GC-MS--I. Quantitation of estrogens after initial hydrolysis of conjugates," *J. Steroid Biochem.* 28(2):203-13, 1987.

Ghulam et al., "Quantitative analysis of human serum corticosterone by high-performance liquid chromatography coupled to electrospray ionization mass spectrometry," *J. Chromatogr. B. Biomed Sci. Appl.* 30:727(1-2):227-33, 1999. (abstract)

Görög, "The changing face of chemical derivatization in pharmaceutical and biomedical analysis," *Fresenius J. Anal. Chem.* 362:4-8, 1998.

Halperin et al., "A new method for determination of serum cholestanol by high-performance liquid chromatography with ultraviolet detection," *Journal of Chromatography B.* 742:345-352, 2000.

Hammermeister et al., "Characterization of dansylated glutathione, glutathione disulfide, cysteine and cystine by narrow bore liquid chromatography/electrospray ionization mass spectrometry," *Rapid Commun. Mass Spectrom.* 14(6):503-8, 2000.

Jeannot et al., "Determination of endocrine-disrupting compounds in environmental samples using gas and liquid chromatography with mass spectrometry," *J. Chromatogr. A.* 974(1-2):143-59, 2002. (abstract)

Johnson et al., "A rapid screening procedure for cholesterol and dehydrocholesterol by electrospray ionization tandem mass spectrometry," *J. Lipid Res.* 42(10):1699-705, 2001. (abstract)

Kempter et al., "Determination of carbonyls using liquid chromatography-mass spectrometry with atmospheric pressure chemical ionization," *J. Environ. Monit.* 1(4):307-11, 1999. (abstract)

Kim et al., "Determination and excretion study of gestrinone in human urine by high performance liquid chromatography and gas chromatography/mass spectrometry," *Rapid Commun. Mass Spectrom.* 14(14):1293-300, 2000.

Kim et al., "Determination of the metabolites of gestrinone in human urine by high performance liquid chromatography, liquid chromatography/mass spectrometry and gas chromatography/mass spectrometry," *Rapid Commun. Mass Spectrom.* 14(18):1717-26, 2000.

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		Lai et al., "Rapid monitoring assay of congenital adrenal hyperplasia with microbore high-performance liquid chromatography/electrospray ionization tandem mass spectrometry from dried blood spots," <i>Rapid Commun. Mass Spectrom.</i> 15(22):2145-51, 2001. (abstract)	
		Lee et al., "Estrogens in female thyroid cancer: alteration of urinary profiles in pre- and post-operative cases," <i>Cancer Letters</i> 189:27-32, 2003.	
		Ma and Kim, "Determination of steroids by liquid chromatography/mass spectrometry," <i>J. Am. Soc. Mass Spectrom</i> 8:1010-1020, 1997.	
		Mitamura et al., "Studies on neurosteroids XII. Determination of enzymatically formed catechol estrogens and guaiacol estrogens by rat brains using liquid chromatography-mass spectrometry-mass spectrometry," <i>Journal of Chromatography B.</i> 748:89-96, 2000.	
		Mitamura et al., "Studies on neurosteroids. Part XIII. Characterization of catechol estrogens in rat brains using liquid chromatography-mass spectrometry-mass spectrometry," <i>Analyst.</i> 125(5):811-4, 2000.	
		Mitamura and Shimada, "Derivatization in liquid chromatography/mass spectrometric analysis of neurosteroids," <i>Se Pu</i> 19(6):508-12, 2001. (abstract)	
		Moody et al., "Determination of buprenorphine in human plasma by gas chromatography-positive ion chemical ionization mass spectrometry and liquid chromatography-tandem mass spectrometry," <i>J. Anal. Toxicol.</i> 21(6):406-14, 1997. (abstract)	
		Ohno et al., "Specific determination of urinary 6beta-hydroxycortisol and cortisol by liquid chromatography-atmospheric pressure chemical ionization mass spectrometry," <i>J. Chromatogr. B. Biomed Sci. Appl.</i> 746(1):95-101, 2000.	
		Shackelton et al., "Electrospray mass spectrometry of testosterone esters: potential for use in doping control," <i>Steroids</i> 62:523-529, 1997.	
		Shimada et al., "Gas chromatography and high-performance liquid chromatography of natural steroids," <i>J. Chromatogr. A.</i> 935(1-2):141-72, 2001.	
		Singh et al., "Liquid chromatography/electron capture atmospheric pressure chemical ionization/mass spectrometry: analysis of pentafluorobenzyl derivatives of biomolecules and drugs in the attomole range," <i>Anal. Chem.</i> 72(14):3007-13, 2000.	
		Tang et al., "Simultaneous determination of urinary free cortisol and 6beta-hydroxycortisol by liquid chromatography-atmospheric pressure chemical ionization tandem mass spectrometry and its application for estimating hepatic CYP3A induction," <i>J. Chromatogr. B. Biomed Sci. Appl.</i> 742(2):303-13, 2000.	

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		Tjernberg et al., "Screening of eltanolone metabolites in dog urine by anion-exchange/reversed-phase liquid chromatography and mass spectrometry," <i>J. Chromatogr. B. Biomed. Sci. Appl.</i> 715(2):395-407, 1998. (abstract)	
		Visser et al., "High-performance liquid chromatography of the neuroactive steroids alphaxalone and pregnanolone in plasma using dansyl hydrazine as fluorescent label: application to a pharmacokinetic-pharmacodynamic study in rats," <i>J. Chromatogr. B. Biomed. Sci. Appl.</i> 745(2):357-63, 2000.	
		Wolthers and Kraan, "Clinical applications of gas chromatography and gas chromatography-mass spectrometry of steroids," <i>J. Chromatogr. A.</i> 843(1-2):247-74, 1999.	
		Wu et al., "Simultaneous quantitative determination of norgestrel and progesterone in human serum by high-performance liquid chromatography-tandem mass spectrometry with atmospheric pressure chemical ionization," <i>Analyst.</i> 125(12):2201-5, 2000. (abstract)	
		Xu et al., "Menstrual cycle effects on urinary estrogen metabolites," <i>The Journal of Clinical Endocrinology & Metabolism</i> 84(11):3914-3918, 1999.	
		Xu et al., "Analysis of endogenous estrogen metabolites in postmenopausal urine by HPLC-electrospray ionization-tandem mass spectrometry, Abstract," <i>Proceedings of the 50th Annual Meeting of the ASMS</i> , April 15, 2002. (abstract)	
		Xu et al., "Stable isotope dilution high-performance liquid chromatography-electrospray ionization mass spectrometry method for endogenous 2- and 4-hydroxyestrones in human urine," <i>J. Chromatogr. B. Analyt. Technol. Biomed Life Sci.</i> 780(2):315-30, 2002.	
		Xu et al., "Measuring Seven Endogenous Ketolic Estrogens Simultaneously in Human Urine by High-Performance Liquid Chromatography-Mass Spectrometry," <i>Anal. Chem.</i> 76(19):5829-5836, 2004.	
		Yahioğlu et al., "8-(ω-aminoalkyl)theophyllines and their use in preparing fluorescently labeled derivatives for applications in immunoassay," <i>Bioconjugate Chem.</i> 8:611-616, 1997.	
		Yamada et al., "A new sensitive determination method of estradiol in plasma using peroxyoxalate ester chemiluminescence combined with an HPLC system," <i>Biomed. Chromatogr.</i> 14(5):333-7, 2000.	
		Yoshino et al., "Use of the derivatizing agent 4-aminobenzoic acid 2-(diethylamino)ethyl ester for high-sensitivity detection of oligosaccharides by electrospray ionization mass spectrometry," <i>Anal. Chem.</i> 67(21):4028-31, 1995. (abstract)	

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		Ziegler et al., "Quantifying estrogen metabolism: an evaluation of the reproducibility and validity of enzyme immunoassays for 2-hydroxyestrone and 16alpha-hydroxyestrone in urine," <i>Environ. Health Perspect.</i> 105(Suppl 3):607-14, 1997.	
		Zwiener et al., "Method optimization for the determination of carbonyl compounds in disinfected water by DNPH derivatization and LC-ESI-MS-MS," <i>Anal. Bioanal. Chem.</i> 372(5-6):615-21, 2002. (abstract)	

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